LISTING OF THE CLAIMS

1.-16. Canceled

17. (Currently amended)The method of ~~claim 2~~ claim 28 wherein the cell is a eukaryotic cell.

18.-19. Canceled

20. (Original) The method of claim 17 wherein the eukaryotic cell is an epithelial cell or an endothelial cell.

21. (Previously presented) The method of claim 17 wherein the eukaryotic cell is a cell of the immune system.

22. (Previously presented) The method of claim 21 wherein the eukaryotic cell is a lymphocyte or a leukocyte.

23. (Original)The method of claim 21 wherein the eukaryotic cell is a neutrophil.

24.-27. Canceled

28. (Currently amended) ~~The method of claim 17 wherein the biological response is~~ A method for inducing the release of an intracellular signal by a cell in a biological system comprising a cell having one or more cell receptors which comprises the step of introducing into the biological system a multivalent ligand which comprises a plurality of signal recognition elements bonded to a molecular scaffold wherein the plurality of signal recognition elements are recognized by at least one of the receptors of the cell and wherein the molecular scaffold is a ring-opening

metathesis polymerization scaffold and wherein one or more of the signal recognition elements is an N-formyl peptide or an N-acyl peptide.

29. (Original) The method of claim 28 wherein the multivalent ligand initiates or enhances the release of the intracellular signal.

30. (Original) The method of claim 21 wherein the cell is a B-cell or a T-cell.

31.-40. Canceled

41. (Currently amended) The method of ~~claim 1~~ claim 28 wherein the multivalent ligand reorganizes receptors on the surface of a cell to modulate the biological response.

42. (Original) The method of claim 41 wherein the relative positions of different receptors on the cell surface is changed to modulate the response.

43. (Withdrawn) The method of claim 42 wherein interactions between cell surface receptors are changed to modulate the response.

44.-58. Canceled

59. (Currently amended) The method of ~~claim 1~~ claim 28 wherein the multivalent ligand further comprises one or more recognition elements, one or more functional elements or both.

60. (Previously presented) The method of claim 59 wherein one or more of the recognition elements binds to a protein.

61. (Withdrawn) The method of claim 59 wherein one or more of the functional elements is a label or a reporter group.

62. Canceled

63. (Withdrawn, currently amended) The method of ~~claim 1~~ claim 28 wherein one or more of the signal recognition elements is a saccharide or a derivatized saccharide.

64. (Currently amended) The method of ~~claim 1~~ claim 28 wherein one or more of the signal recognition elements is a peptide or a derivatized peptide.

65. (Withdrawn) The method of claim 1 wherein one or more of the signal recognition elements is a protein.

66.-67. Canceled

68. (Currently amended) The method of ~~claim 1~~ claim 28 wherein the multivalent ligand comprises a defined number of signal recognition elements.

69. (Withdrawn, currently amended) The method of ~~claim 1~~ claim 28 wherein the multivalent ligand comprises 2 to about 10 signal recognition elements.

70. (Withdrawn, currently amended) The method of ~~claim 1~~ claim 28 wherein the multivalent ligand comprises about 10 to 25 signal recognition elements .

71. (Currently amended) The method of ~~claim 1~~ claim 28 wherein the multivalent ligand comprises about 25 or more signal recognition elements.

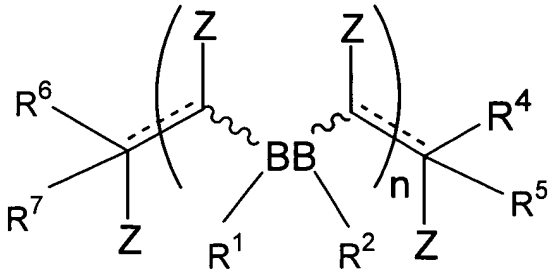
72. (Currently amended) The method of ~~claim 1~~ claim 28 wherein the multivalent ligand comprises about 50 or more signal recognition elements.

73. (Currently amended) The method of ~~claim 1~~ claim 28 wherein the multivalent ligand comprises about 100 or more signal recognition elements.

74. (Currently amended) The method of ~~claim 1~~ claim 28 wherein the signal recognition elements are covalently bonded to the molecular scaffold.

75.-81. Canceled

82. (Currently amended) The method of ~~claim 1~~ claim 28 wherein the multivalent ligand has the structure:



wherein:

n is an integer that is 2 or more which represents the number of repeating units within the parentheses in the ligand;

the dashed lines indicate optional double bonds;

BB represents the backbone repeating unit, which may be cyclic or acyclic, and may be the same or different in a random or block arrangement, the wavy lines indicating that a BB unit may be in either a cis or trans configuration in the ligand backbone;

~~each~~ R^1 and R^2, independently of other R^1 and R^2 in the ligand, can be H, ~~or~~ an organic group, $-L^2$-RE, $-L^3$-FE, or $-L^1$-SRE wherein a plurality of R^1 or R^2 in the ligand are $-L^1$-SRE ~~or both of R^1 and R^2 can be the $-L^1$-SRE~~

~~group~~ where RE is a recognition element, SRE is a signal recognition element and FE is a functional element;

wherein L^{1-3}, independently, represent optional linker groups which may be the same or different in different repeating units;

R^4 and R^5 are H, or an organic group;

R^6 and R^7 are H, an organic group or an end-group; and

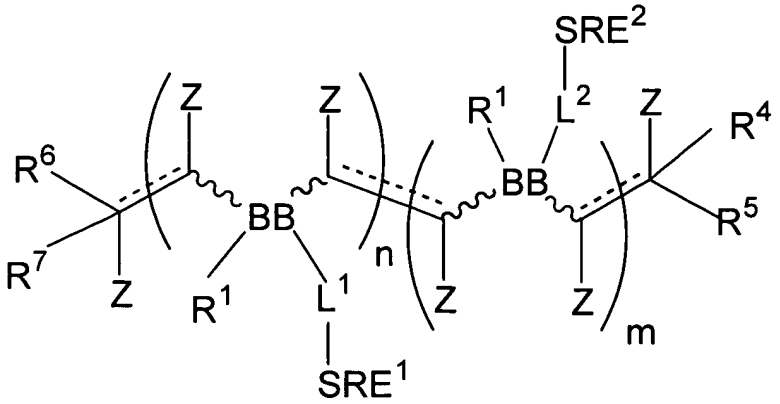
Z , independently of other Z in the ligand, is H, OH, OR^8, SH, a halide, NH_2 or $N(R^8)_2$, where R^8 is H or an organic group or Z is absent when the optional double bond is present.

83.-88. Canceled

89. (Withdrawn) The method of claim 82 wherein at least one R^1 or R^2 is an -L^3-FE group which is a detectable label or a reporter group.

90. (Original) The method of claim 82 wherein at least one R^1 or R^2 is an -L^2-RE group.

91. (Currently amended) The method of claim 82 wherein the multivalent ligand has the structure:



wherein:

m + n is 2 or more;

dashed lines indicate the presence of optional double bonds;

BB represents the backbone repeating unit, which may be cyclic or acyclic, where each BB may be the same or different and wavy lines indicate that the BB unit may be in a cis or trans configuration in the backbone of the repeating unit;
each R^1 , independent of other R^1 in the ligand, can be H or an organic group;
L^1 and L^2, which may be the same or different, represent optional linker groups;
SRE^1 and SRE^2 represent two different signal recognition elements;
R^4 and R^5 are H, an organic group or an end-group;
R^6 and R^7 are H, an organic group or an end-group; and
Z , independently of other Z in the polymer, is H, OH, OR^8, SH, a halide ~~(F, Br, Cl, I)~~, NH_2 or $N(R^8)_2$ where R^8 is H or an organic group or Z is absent when a double bond is present.

92. (Original) The method of claim 91 wherein one or both of SRE^1 and SRE^2 are peptides or derivatized peptides.

93.-139. Canceled

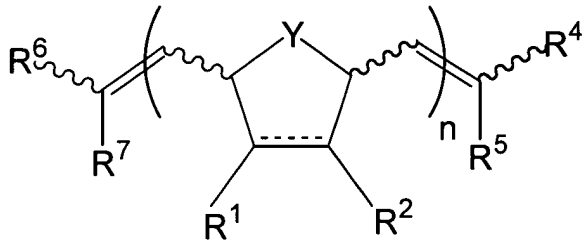
140. (Currently amended) The method of ~~claim 1~~ claim 28 wherein the multivalent ligand is bonded to a solid support.

141. (Currently amended) The method of ~~claim 82~~ claim 144 wherein the multivalent ligand is bonded to a solid support.

142. (Previously presented) The method of claim 17 wherein the eukaryotic cell is a mammalian cell.

143. (Previously presented) The method of claim 142 wherein the eukaryotic cell is a human cell.

144. (Currently amended) ~~The method of claim 91~~ A method for inducing a biological response in a biological system comprising one or more receptors which comprises the step of introducing into the biological system a multivalent ligand which comprises a plurality of signal recognition elements bonded to a molecular scaffold wherein the plurality of signal recognition elements are recognized by at least one of the receptors wherein the multivalent ligand has the structure:



wherein:

n is an integer that is 2 or more that represents the number of repeating units within the parentheses in the ligand; the dashed line indicates an optional double bond;

each Y, independent of other Y in the ligand, is an -O-, a -S-, an $-NR^8$, or a $-CH_2-$ group, where R^8 is H or an organic group;

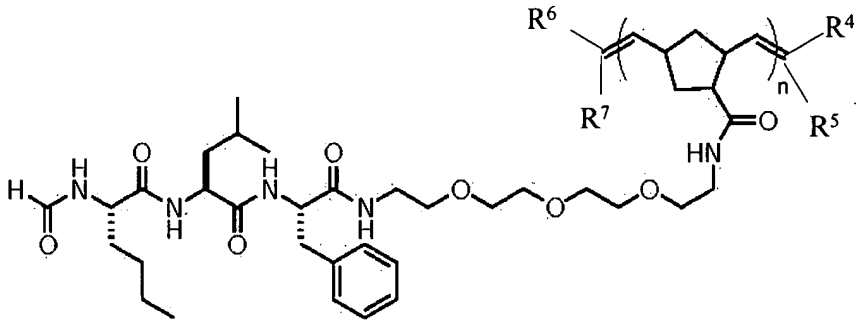
~~each~~ R^1 and R^2, independent of other R^1 and R^2 in the ligand, can be H, an organic group, $-L^1$-SRE, $-L^2$-RE, or $-L^3$-FE, where SRE is a signal recognition element, RE is a recognition element, and FE is a functional element wherein ~~at least one~~ a plurality of the R^1 and R^2 groups in the ligand ~~is~~ are $-L^3$-SRE;

wherein L^{1-3} represent optional linker groups;

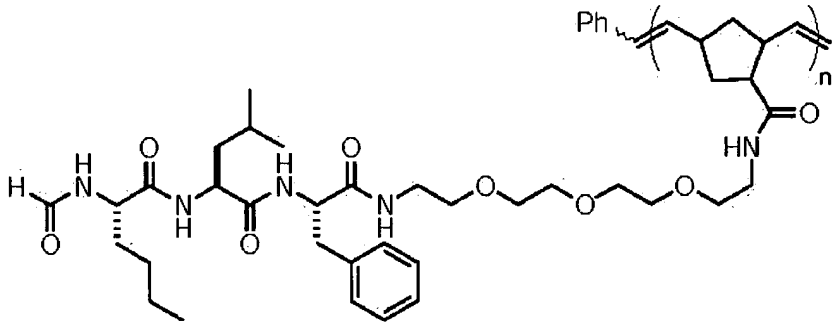
R^4 and R^5 are H, an organic group or an end-group; ~~and~~

R^6 and R^7 are H, an organic group or an end-group; and wherein one or more of the signal recognition elements is an N-formyl peptide.

145. (Previously presented) The method of claim 144 wherein the multivalent ligand has the structure:

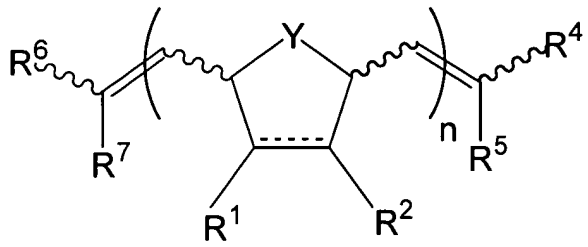


146. (Previously presented) The method of claim 145 wherein the multivalent ligand has the structure:



147. (Previously presented) The method of claim 146 wherein n is 50 or more.

148. (Currently amended) The method of claim 28 wherein the multivalent ligand has the structure:



wherein:

n is an integer that is 2 or more that represents the number of repeating units within the parentheses in the ligand; the dashed line indicates an optional double bond

each Y, independent of other Y in the ligand, is an -O-, a -S-, an $-NR^8$, or a $-CH_2-$ group, where R^8 is H or an organic group;
each R^1 and R^2, independent of other R^1 and R^2 in the ligand, can be H, an organic group, $-L^1$-SRE, $-L^2$-RE or $-L^3$-FE, where SRE is a signal recognition element, RE is a recognition element and FE is a functional element wherein ~~at least one~~ a plurality of the R^1 and R^2 groups in the ligand is $-L^3$-SRE;
wherein L^{1-3} represent optional linker groups;
R^4 and R^5 are H, an organic group or an end-group; and
R^6 and R^7 are H, an organic group or an end-group.

149. Canceled

150. (Currently amended) The method of ~~claim 148~~ claim 28 wherein ~~the SRE~~ wherein one or more of the signal recognition elements is ~~a formylated~~ an N-formyl peptide.

151. (Previously presented) The method of claim 28 wherein the release of the intracellular signal is initiated or enhanced.

152. (Previously presented) The method of claim 28 wherein the intracellular signal is calcium.

153. (Previously presented) The method of claim 28 wherein the intracellular signal is a mitogenic signal.

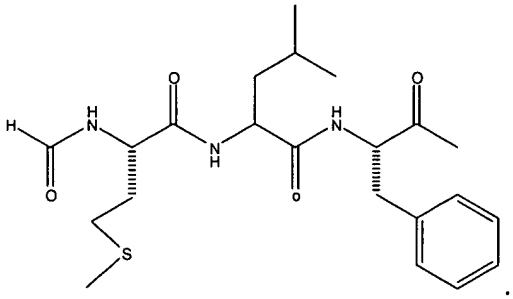
154. (Currently amended) The method of claim 28 wherein the intracellular signal is a chemical species that functions as a chemical ~~signals~~ signal for other cells.

155. (Currently amended) The method of claim 154 wherein the chemical signal released is selected from the group consisting of a naturally-occurring drug, a hormone, an antigen, a growth factor, a cytokine, a protein, a peptide, a derivatized peptide, a saccharide ~~saccharides~~, a derivatized saccharide, a nucleic acid, a cell nutrient, or an epitope.

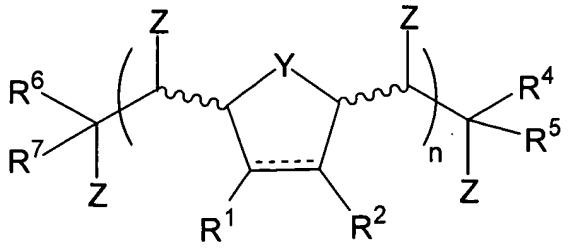
156. (Withdrawn, currently amended) The method of ~~claim 1~~ claim 28 wherein the method is practiced *in vitro* or *ex vivo*.

157. (Currently amended) The method of ~~claim 1~~ claim 28 wherein the method is practiced *in vitro*.

158. (New) The method of claim 144 wherein SRE is:



159. (New) A method for inducing a biological response in a biological system comprising one or more receptors which comprises the step of introducing into the biological system a multivalent ligand which comprises a plurality of signal recognition elements bonded to a molecular scaffold wherein the plurality of signal recognition elements are recognized by at least one of the receptors wherein the multivalent ligand has the structure:



wherein:

n is an integer that is 2 or more that represents the number of repeating units within the parentheses in the ligand; the dashed line indicates an optional double bond;

each Y, independent of other Y in the ligand, is an -O-, a -S-, an -NR^8, or a -CH_2- group, where R^8 is H or an organic group;

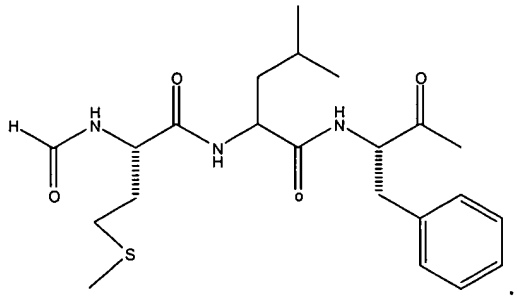
R^1 and R^2, independent of other R^1 and R^2 in the ligand, can be H, an organic group, -L^1-SRE, -L^2-RE, or -L^3-FE, where SRE is a signal recognition element, RE is a recognition element, and FE is a functional element wherein a plurality of the R^1 and R^2 groups in the ligand are -L^3-SRE;

wherein L^{1-3} represent optional linker groups;

R^4 and R^5 are H, an organic group or an end-group; R^6 and R^7 are H, an organic group or an end-group;

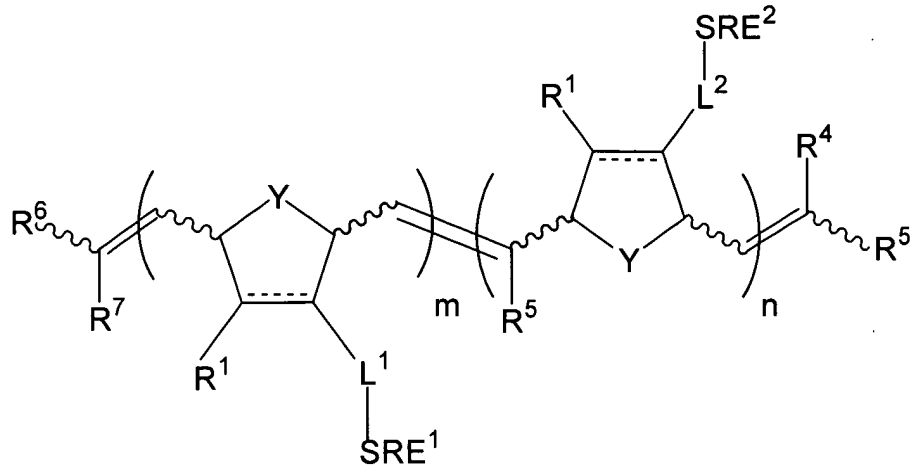
Z , independently of other Z in the ligand, is H, OH, OR^8, SH, a halide, NH_2 or $N(R^8)_2$, where R^8 is H or an organic group or Z is absent when the optional double bond is present and wherein one or more of the signal recognition elements is an N-formyl peptide.

160. (New) The method of claim 158 wherein the N-formyl peptide is:



161. (New) The method of claim 158 wherein Z is OH.

162. (New) The method of claim 28 wherein the multivalent ligand has the structure:



wherein:

m + n is an integer of 2 or more and each integer represents the number of repeating units in the parentheses;

each Y, independent of other Y in the ligand, is -O-, -S-, -NR^8-, or -CH_2-;

R^1 can be H, an organic group, a -L^2-RE group or an -L^3-FE group;

L^1 and L^2, which may be the same or different, represent optional linker groups;

SRE^1 and SRE^2 represent two different signal recognition elements;

R^4 and R^5 are H, an organic group or an end-group; and

R^6 and R^7 are H, an organic group or an end-group.

163. (New) The method of claim 162 wherein one of SRE^1 or SRE^2 is an N-formyl peptide and the other is a saccharide.

164. (New) The method of claim 162 wherein SRE^1 or SRE^2 are two different derivatized peptides.